Environmental policy issues are not only about natural processes and trends, but about the impacts on them of human decisions and behavior patterns. From global warming and the stratospheric ozone hole to tropical deforestation, over-fishing, air and water pollution and urban sprawl and other issues, unsustainable or damaging uses of the environment result from human behavior: as individual householders, consumers, and citizens, as employees or managers in businesses and other organizations, as legislators and government administrators, and as representatives of countries negotiating international agreements, among other roles.

The objectives of this course are, first, to examine the factors affecting environmental decision-making by individuals, businesses, governments, and international institutions, and the theories and evidence available for understanding and explaining their behavior; and second, to identify the implications of these considerations for designing policy incentives and action strategies to make their decisions more environmentally sustainable. The basis for this inquiry will be a combination of readings, cases, and guest presentations by environmental decision-makers. The course expectations are designed particularly to serve students majoring in public policy, environmental studies, environmental sciences, and related fields; other students interested in engaging the subject matter at that level are also welcome.

There are many more kinds and examples of environmental decisions than can be discussed in depth in a single semester. For this semester, we will discuss three broad types of environmental decisions: decisions by individuals, by businesses, and by governments. For each of these decision types, we will discuss one to several examples. For each of these examples, we will typically discuss background readings and theories of decision-making, and one or more case studies, including discussion of public policy options for most effectively promoting behavior and decision-making that is better for the environment. In each student’s own papers (discussed below), you will also have the opportunity to explore examples of environmental decision-making on your own and in greater depth.

**Course requirements**

The specific requirements of the course include required readings for each class session; active participation in class discussions; several papers, individual and team presentations, and a final examination.
**Readings:** Most required readings can be downloaded from E-reserves on UNC Library’s web site or found directly on Internet links, and printed if you wish to do so; a few may also be added via the Blackboard course web site. This procedure will save you the cost of buying a course pack (including particularly the additional cost of course-pack copyright royalties, which UNC covers for e-reserves).

Additional course materials and announcements will be posted on UNC’s Blackboard course support web site (http://blackboard.unc.edu). **Please start by going to this site immediately and downloading an electronic copy of the course syllabus.** This will allow you to access many readings directly from hotlinks in the syllabus.

**Class discussions:** Class discussion is an important core element of the course, designed to examine academic theories about human behavior and decision-making and then to apply them to environmental issues. Please be sure to do the readings ahead of each class for which they are assigned, and come prepared to participate actively in class discussions. From time to time we will also use smaller group and team discussions.

**Team problems and presentations:** At the beginning of each of two sections of the course (individual and business decision-making), we will use team processes to develop background information and brainstorm possible ways of improving decision-making about a range of environmental problems and issues. As a team member, each student is expected to contribute actively to the team’s success in developing background information, brainstorm possible solutions, and preparing a class presentation on possible strategies to influence more environmentally sustainable decisions related to the assigned issue. Each team will have a maximum of 8-10 minutes to present its ideas, followed by 5-10 minutes of class discussion. You are encouraged to use your combined efforts to find out enough about the individual issue to make plausible recommendations, while recognizing that this is not a fully developed research project. This will probably require at least two team meetings outside of class, with individual work effort in between them, so be sure to get together and arrange these well ahead of time.

**Written assignments:** At the end of each of the first two main segments of the course (individual and business decisions), each student will be expected to submit a 5-8 page paper (longer is allowed if you wish to) representing your own best ideas, based on your earlier team project but refined based on what you have learned since, on the most promising strategies for improving environmental decision-making on the issue you had earlier brainstormed as a team. At the end of the third segment (government decision-making), each student will be expected to submit a similar paper on the most promising strategies for improving government decision-making on an environmental issue of your own choice (“government decision-making” can include any specific example of government decision-making significantly affecting the environment, at levels from local to international, and focusing on either legislative or executive/administrative decisions).

In each paper, you are encouraged to apply what you have learned from the readings and class discussions, as well as your own research on the issue and on decision-making by the relevant type of decisions-makers, to show how it can be used to improve
these sorts of decisions. Be sure to use proper practices for citing and identifying all reference materials used (there is a handout on such practices on the Blackboard site).

**Examinations:** There will be a take-home final examination, which will be based on the readings and related class discussions, but no midterm.

**Grades:** Grades will be calculated as follows: 15% first paper, 20% second paper, 25% third paper, 15% class participation (including team assignments and presentations as well as discussion participation), 25% final exam.

**Documenting source materials and avoiding plagiarism:** It is very important that you develop good habits of documenting the sources both of factual statements and of the ideas, opinions, and arguments of other people that you use in any paper you write. One basic reason for this is to be able to support the statements you make and the facts you use, both for your own future use and if anyone else should question or disagree with them. A second reason is to distinguish clearly between someone else’s ideas and arguments and your own, and not confuse the two. And a third is to protect your own integrity against either deliberate or accidental representation of someone else’s ideas or work as your own, which if intentional is known as plagiarism and is a serious violation of the UNC Honor Code and of the standards of ethical writing.

Please read the handout on the Blackboard site for more detailed suggestions on this subject. For additional detail on proper citation and appropriate use of other authors’ materials, see [http://www.unc.edu/depts/wcweb/handouts/plagiarism.html](http://www.unc.edu/depts/wcweb/handouts/plagiarism.html). For handouts on other good writing practices, [http://www.unc.edu/depts/wcweb/handouts/](http://www.unc.edu/depts/wcweb/handouts/).
## CLASS SCHEDULE AND READINGS

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### II. Environmental Decisions by Individuals: Consumers, Households

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### III. Environmental Decisions By Businesses

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### IV. Environmental Decision-Making by Governments

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<td>April 11</td>
<td>Additional session (optional, 5:30 p.m., Tate-Turner-Kuralt Auditorium): Guest lecture by Dr. Robert Costanza on ecological economics</td>
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<td>International environmental decisions. Case: negotiating a global climate change agreement (multi-country simulation)</td>
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<td>Negotiating a global climate change agreement (continued) (NOTE: class runs till between 8:00 and 9:00, last hour important for debriefing)</td>
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<td>May 2</td>
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CLASS SCHEDULE AND READINGS

I. Introduction and Context

January 12 Introduction

- Self-introductions
- Introduction to syllabus: course objectives, expectations, logistics; Q&A
- Discussion questions: What are some important examples of environmental problems we are each most interested in and concerned about (global, national or state, local examples)?
  In what sense are these behavioral or decision-making problems? Whose behavior, who makes the decisions – individuals, organizations, governments, social norms and expectations?
  Which of these are appropriately public policy issues, and why? What can governments do about them that individuals or other organizations can’t? Is government a solution or just another cause of the problems?

January 17 Environmental issues

Read the Millennium Ecosystem Assessment summary report below, and browse other sources such as those listed (and any others you choose to explore on your own) to gain a sense of current environmental issues and concerns. Bring to class (to turn in at end of class) a brief written description of one to three environmental conditions or trends that you personally are most interested in learning more about as environmental decision-making problems. (Note: identify those of most interest to you, whether or not they are included in other reports).

- Discussion questions: What are the important unsolved environmental problems that we should be concerned about? In the United States, and globally? Are there any that you consider important that are omitted from major published reports such as those below?
  In what ways are these problems caused by human behavior and decisions? Pick an example that interests you, and identify what kinds of behavior and decisions contribute significantly to the problem. Then think about why: if you think it’s a problem, why don’t the people whose actions are affecting it, or why do they keep making such decisions anyway?


(all others below optional, for further ideas on issues)
January 19    Environmental issues as problems of behavior and decision-making

How are environmental problems such as those we discussed last time caused by human behavior and decision-making? By decisions of individuals, businesses, governments, other organizations? By behavior that does or does not match the stated decisions? Equally important, what kinds of behavioral and decision-making solutions are most likely to be effective? Most likely to be achievable?

Case study: energy use. Energy use is a major source of environmental problems throughout the modern world, including serious water pollution in energy resource extraction and transport (coal, oil, others), severe air pollution in oil refining and fossil fuel combustion, and global warming due to emissions of greenhouse gases.

Read the Gardner/Stern chapter below, and come prepared to discuss which behaviors and intervention points might be most important and effective for reducing these problems, and what strategies one might then try to design to do so at each of these points.

January 23  Monday, 7:30-9:00 p.m. (extra session, optional, Koury Auditorium, UNC Kenan-Flagler Business School): Panel discussion on “Energy and Global Climate Change,” with senior executives from Progress and Duke Energy and faculty experts from UNC and Duke University.

January 24  Private versus collective decisions

Case study: FISHBANKS (team simulation). Teams to be assigned, and handouts to be distributed.

January 26  Markets and governance: why government, why public policies

Discussion of lessons from FISHBANKS simulation, and implications for markets, governance, and governments.

How can we solve situations in which the collective consequences of individually rational decisions result in environmentally destructive outcomes? What are the key elements of Garrett Hardin’s argument about the circumstances under which “tragedies of the commons” happen? Think of other examples in addition to pastures and fisheries. What does Feeny’s article teach us about the range of possible solutions to tragedies of the commons?

What environmental problems do not fit this model (think of examples)? When and why should governments attempt to solve environmental problems and to influence environmental decisions?


January 31  Government actions: policy “tools,” impacts, successes and failures

If it is true that at least some environmental problems require action by governments, what public policy tools can governments use to try to influence environmental decisions? Make a list of the main types of environmental policy tools Gunningham and Grabosky discuss, then add to it any other kinds of actions you can think of that governments might use to try to solve environmental problems. Finally, for each of these tools list what you imagine might be its greatest strengths and weaknesses (ungraded assignment -- be prepared to turn this in).
II. Environmental Decisions by Individuals: Consumers, Households

February 2 Introduction: How and why do individuals make environmental decisions?

Read the articles by Ridley and Low, Stern, and Slovic et al. What are the essential elements of Ridley and Low’s argument about how people behave toward the environment, and about what kinds of strategies environmental advocates should use (and not use) to promote environmentally sustainable behavior? What are the strengths of their argument concerning rational self-interest versus altruism, and what are the possible criticisms of it? What strategies might be most successful in influencing the Kansas farmer/irrigators (in the Ridley/Low example) to conserve their use of groundwater – the example of the European irrigators? Appealing to their altruism, their self-interest, or something else? How might Diamond respond?

How is Stern’s behavioral characterization of environmental decision making similar to and different from Ridley and Low’s approach? What implications do these similarities and differences have for understanding and trying to influence people’s environmental decisions? For instance, how would you apply Stern’s VBN and ABC concepts to the Kansas irrigators of Ridley and Low’s example? What strategies might Stern propose would be most successful in influencing them to conserve their use of groundwater: changing their values, their information, or their incentives? Or what?

Stern’s theory argues (among other things) that motivations for pro-environmental behavior are based on perceptions of risk to environmental conditions that a person values. Slovic and his colleagues describe in greater detail how people characterize and act on such perceptions of risk. What are their main findings? What implications do these findings have for theories of “rational self-interest” as a basis for people’s environmental decisions and behavior? What implications do they have for theories of democratic decision-making: should some environmental risks be tightly restricted or prohibited simply because people are fearful of them, even if their statistical risk is very low or there is little scientific evidence of any risk?

Finally, can you think of any examples of pro-environmental behavior that might be based on motivations other than a sense of risk or threat to
environmental values? If yes, how might we amend Stern’s and Slovic’s perspectives to state a clearer theory of environmental behavior and decision-making?


**February 7   Presentations 1: Influencing individual environmental decisions**

Team assignments (teams to be assigned): As a team, brainstorm and come prepared to present strategies to influence individuals to make more environmentally sustainable decisions on one of the following issues. In each case you are challenged to address a particular environmental decision problem, involving a particular population or group of people whose characteristics may differ in at least some respects from others.

Each team will have a maximum of 5 minutes to present its ideas, followed by 5 minutes of class discussion. Be prepared to present your team’s ideas on no more than two overheads, Powerpoint slides, or paper pages (32 copies needed).

You are encouraged to use your combined efforts to find out enough about the individual issue to make plausible recommendations, while recognizing that this is not a fully developed research project. This will probably require a couple of team meetings outside of class, with individual work effort in between them, so be sure to get together and arrange these well ahead of time. You can reach each other by email using the Blackboard web site email function.

Team 1: purchasing far more fuel-efficient motor vehicles (young single or married women)
Team 2: making their residence radically more energy-efficient (suburban homeowners)
Team 3: recycling electronic products (college student computer and TV owners)
Team 4: purchasing only certified sustainably-grown paper and/or lumber (working-class homeowners)
Team 5: Eating only sustainably caught or grown fish (African-American or Hispanic families)
Team 6: Introducing green practices (recycling, energy conservation, …?) in an apartment complex or retirement community (apartment dwellers or retirees)
February 9  Influencing individual decisions: environmental values and attitudes

How do people’s values, attitudes and perspectives about the environment shape the decisions they make that affect the environment? Are moral and ethical values about how to treat the natural environment simply a special kind of individual preference, or something more?

How do people’s values, attitudes, and perspectives about other things affect their decisions affecting the environment: for instance, about the rights of individuals, businesses, or governments to control the outcomes? About preservation of the status quo versus change: does change represent progress and improvement or risk and destruction? About material wealth and comfort versus nonmaterial values (community, spirituality, simplicity, …)? About their own roles as individual consumers or citizens, as members of families and communities, and as managers or employees? How do your values, attitudes, and perspectives on these sorts of issues affect your environmental decisions?

Cases: Motor vehicle fuel efficiency, voting decisions. If public values are changing in a pro-environmental direction, as Gardner & Stern suggest, how might we explain people’s continued purchases of gas-guzzler motor vehicles? Or Oregonians’ recent vote for Measure 37? Or many people’s continued votes for a Republican-controlled Congress, whose leadership has already demonstrated a strong anti-environmental agenda?

In light of such behavioral outcomes, what can we say about people’s environmental values, and about the effectiveness of trying to change them? Can you think of any more effective strategies for influencing people’s values toward environmental protection and conservation?


http://www.nicholas.duke.edu/institute/surveywhitepaper.pdf


February 13  Monday, 3:30-5:30 p.m. (extra session on government environmental decision-making, location TBA, optional for those with class conflicts): Discussion with former U.S. EPA Administrator Christine Todd Whitman


February 14  Changing information, beliefs, and education

What are the strengths and limitations of trying to change people’s environmental behavior through educational and informational programs? Is it true that if we just educated people better and provided them with better information, they would make environmentally responsible decisions? What else would have to be true for this strategy to work?

**Case:** “Eco-labeling” of products: There are quite a range of environmental product-information initiatives now in existence: consider for instance “dolphin-safe” labels on canned tuna fish, energy-use labels on appliances and gasoline mileage labeling on cars, recyclability and recycled-content labels, “organic” content labeling for foods and cosmetics, warning or hazard labels (toxic contents, genetically engineered foods), and “seal of approval” labels (Germany’s Blue Angel, FSC forest products sustainable-management label, sustainably-harvested fish labels).

What lessons does U.S. experience with environmental labeling programs offer to help answer these questions? What lessons does Germany’s Blue Angel eco-label program offer about the relationship between changing education and information, and changing people’s environmental behavior?

Under what circumstances are eco-labels likely to be effective in producing more environmentally sustainable behavior by consumers? Would they work for other products that have major environmental impacts, such as cars? Houses? Fish? Others…?


February 16  Changing incentives

What are the strengths and limitations of trying to change people’s environmental behavior by changing the economic incentives they face? Is it true that if we just fixed the incentives, such as raising the price of environmentally damaging goods and services, they would make environmentally responsible decisions? What else would have to be true for this strategy to work? What can we learn from Gardner and Stern’s findings on incentives programs for municipal waste reduction? For household energy conservation? For influencing environmental decisions of businesses? For incentive-based strategies more generally?

Case: Waste management fees. Read Gardner & Stern’s discussion of pay-as-you-throw (PAYT) programs, NCDENR’s introduction to PAYT, and (optional) selected pages from Bauer and Miranda’s background paper on experiences of other communities.

The Town of Carrboro recently considered introducing a pay-as-you-throw (PAYT) waste-management fee (you would have to purchase an official sticker to put on each bag of trash you throw out, with the revenues intended both as an incentive to people to reduce or recycle more of their trash and as a
dedicated revenue source to pay for the town’s recycling and other waste-management services).

Would this be a good public policy? Would it provide better incentives for environmentally beneficial waste-reduction and waste management behavior? What would be its likely consequences, incentive effects, and positive and negative impacts?


(Optional) For information on many other articles and publications on pay-as-you-throw initiatives, see http://www.epa.gov/epaoswer/non-hw/payt/index.htm

February 21 Paper 1 due.

Based on what you have now read and learned about influencing individual environmental decisions, turn in an individual 5-8 page paper (longer if you wish) on your own revised and improved strategy proposals for influencing individual decisions to be more environmentally sustainable with respect to the problem you addressed with your team in the earlier session. These are individual papers, not a group product: be thoughtful and creative, try to foresee the barriers as well as the opportunities, and try to go beyond wherever you got to for the team presentation.

February 21 Presentations/discussion 2A: Influencing individuals’ envr. decisions

In class we will hear an oral summary of key points from each student, compare and discuss them, and generate further ideas from the class (first several topics).

February 23 Presentations/discussion 2B (cont’d): Influencing individuals’ decisions

In class we will hear an oral summary of key points from each student, compare and discuss them, and generate further ideas from the class (remaining topics).
February 28  Voluntary organizations and environmental decision-making (1): Why do individuals join environmental groups, and how do the characteristics of such groups affect the groups’ environmental decisions?

Read Wilson’s discussion of why people join groups, and Bosso’s assessment of the state of the American environmental movement today. Why do people join national environmental groups such as the Sierra Club or Greenpeace, or local ones, or even student groups such as the Student Environmental Action Coalition (SEAC)? What would Wilson say? Do you agree? What might environmental groups do differently today to strengthen their political influence and achieve more effective results?

Read Layzer’s case study of the “anti-environmental” movement (also recall the piece by Grover Norquist which we read earlier in the semester). What kinds of people, organizations, and issues provide the main strength of these groups? How are these groups similar to and different from environmental advocacy groups, and what would Wilson say about the incentives or motivations for people to join them? What are the roots of the anti-environmental backlash? Are the concerns of “wise use” and property rights advocates justified (and why or why not?)? Why is the anti-environmental agenda so dominant in Washington today?

Should the effectiveness of these anti-environmental backlash groups prompt environmental advocacy leaders to reexamine their goals and strategies? If so, what sorts of approaches should they adopt?


NOTE: PLEASE START NOW ON YOUR SECOND TEAM BRAINSTORM / PRESENTATION ASSIGNMENT DUE NEXT THURSDAY!

III. Environmental Decisions By Businesses

March 2  Introduction: How and why do businesses make environmental decisions?

Decisions by business organizations – about the materials and energy they use, about their production processes, and about their products – often have far greater
environmental impact than those of individual consumers. How do businesses consider environmental impacts in making decisions that affect such impacts?

Who makes businesses’ decisions affecting the environment, and what factors and pressures most strongly influence them? How do the environmental decisions of individuals as executives or agents of an organization differ from the environmental decisions they might make as individuals? What factors might cause such decisions to be different? Should they be different?

What are the distinctive characteristics of business corporations, and how do these characteristics affect their environmental (and other) decision-making?

Do you agree with Friedman’s arguments about the nature and limits of corporate social responsibility? With which, and why or why not? Can you envision any circumstances in which he might be wrong (i.e. that corporations might have far broader social and environmental responsibilities than he suggests), or that would significantly modify the apparent blunt simplicity of his principles? Bring to class a list of your main points in response to these questions about Friedman’s arguments.


March 7  Presentations 3: Influencing environmental decisions of businesses

Team assignments (teams to be assigned): As a team, brainstorm and come prepared to present strategies to influence businesses to make more environmentally sustainable decisions on one of the following issues. In each case you are challenged to address a particular environmental decision problem, involving a particular type of business and sector whose characteristics may differ in at least some respects from others. Think particularly about what characteristics of the kind of business itself, as well as the environmental impacts in question, should influence your choice of strategy (big vs. small operation? Corporation or small business? Old vs. new production units? Who makes key envr. decisions, and at what level of the organization? Other relevant characteristics …?)

Each team will have a maximum of 5 minutes to present its ideas, followed by 5 minutes of class discussion. Be prepared to present your team’s ideas on no more than two overheads, Powerpoint slides, or paper pages (32 copies needed).

You are encouraged to use your combined efforts to find out enough about the individual issue to make plausible recommendations, while recognizing that this is not a fully developed research project. This will probably require a couple of team meetings outside of class, with individual work effort in between them, so be sure to get together and arrange these well ahead of time. You can reach each other by email using the Blackboard web site email function.
March 9
Why are some businesses “green” (but not others)?

Read Frey’s article on BP, and pp. 3-11 of the report of the World Business Council for Sustainable Development on corporate social responsibility and SustainAbility’s business case (see internet link) for corporate social and environmental responsibility. (Also review our Jan. 17 reading on business lessons from the Millennium Ecosystem Assessment).

Case: British Petroleum (BP): Is BP a “green” oil company? What factors might explain its “greener” strategy than competitors such as ExxonMobil? Should environmental advocates praise BP, or attack it for hypocrisy or for “greenwashing” its behavior? If BP’s strategy works for BP, why aren’t Exxon/Mobil and other oil companies following its lead? Should public policies be designed to selectively favor and reward companies like BP for “greener” behavior? If so, in what ways?

More generally, then, are WBCSD’s claims of business commitment to social responsibility credible? Why do some businesses publicize themselves as leaders in environmental sustainability and corporate social responsibility (for example, BP and other major transnational corporations that are members of WBCSD), while others commit criminal violations of environmental laws? Is there really a “triple bottom line” for some companies – creating greater value by combining economic profit and environmental sustainability and social equity – or just a more (or less) enlightened focus on a single bottom line? What kinds of corporations would you expect to be members of an organization such as

Team 7: A major residential or commercial construction/development firm (such as the firm that is about to build the huge Briar Chapel development in Chatham County, or one that builds major shopping centers): adopting “green building” standards

Team 8: An electric power utility (such as Southern Company, Duke or Progress Energy): radically reducing fossil-fuel combustion emissions (major shift toward “greener” energy sources)

Team 9: A large hog or poultry farm, or one of the major hog- or poultry-production corporations (such as Smithfield Foods or Perdue) for which most large hog or poultry farms are contractual producers: radically reducing (zero emissions?) emissions/discharges of water and air pollutants.

Team 10: A major mining or forest-products corporation (such as Newmont or Pacific Lumber/Maxxam): achieving environmentally clean and ecologically sustainable operations, either in U.S. or in a tropical developing country.

Team 11: An industry in which significant amounts of pollution are generated by relatively small or medium-sized businesses (for instance metal finishing, automotive repair shops, dry cleaners, …), either in the U.S. or in a developing country

Team 12: A government-owned business enterprise, such as a local water and sewer authority, a public school system, or a state university.
WBCSD, and which ones not? What would Milton Friedman say about the
WBCSD, and why? Are Friedman’s arguments persuasive?

Depending on your answers, do corporate social responsibility initiatives
offer an adequate basis for environmentally responsible decisions by businesses?
If not, what other approaches should be considered? Government regulation?
Environmental “codes of conduct” for all firms operating in each industry? Other
approaches?

BP. 2002. BP Beats Greenhouse Gas Target By Eight Years And Aims To
Stabilise Net Future Emissions. Press release, March 11, 2002, on line at
http://www.bp.com/genericarticle.do?categoryId=120&contentId=2014394

Section 6, p. 99

Responsibility In Brief” and “CSR—Delving Deeper.” Corporate Social
http://www.wbcsd.org/DocRoot/Fc7YqesJY1mU6ilvhnSZ/CSRmeeting.pdf

(Optional, unusually useful assessment of the “business case” for sustainability)
SustainAbility.com. Buried Treasure. On line (requires free registration) at
(accessed 12-23-05)

(Optional) See also David Cullen and Tom Bergin, BP to double investment in
greener energy, Reuters, November 28, 2005.

(Optional) For BP’s environmental report for 2001 see
http://www.bp.com/environ_social/review_2001/index.asp (and related links)

(Optional) For Exxon Mobil’s environmental web page see
http://www2.exxonmobil.com/Corporate/Notebook/Footprint/Corp_N_Indicators.
asp

(Optional) For examples of criminal penalties against businesses for
environmental behavior, see http://www.ehso.com/prevpollutors2000.php

March 14, 16  No class (Spring Break – but be sure to read and think ahead to the
readings and discussion questions for March 21!)

March 21  Case: Green buildings and the development, construction, and buildings
management industries (guest participants: Cynthia Shea, UNC-CH
sustainability director, and Tim Toben, business entrepreneur)
Buildings of all kinds make up one of the major drivers of environmental impact: on energy and materials use, air and water pollution, landscape transformation, and many other impacts. They also are one of the major types of long-term fixed investments that once built, determine such impacts for many decades. Creating and using buildings, in turn, involves a wide range of decision-makers with varied values and attitudes, information and beliefs, and incentives; and these also may differ with different types of buildings (housing, commercial, mixed-use, and other types of developments such as universities and other institutions).

In recent years there has been a substantial increase of interest in developing “green buildings” (see readings below), but such buildings are still a small minority of the new buildings under construction, and are also far outnumbered by the large existing stock of older buildings still in use.

Who makes decisions about buildings and their environmental impacts, and how these decisions can be influenced toward greater environmental sustainability. Do third-party certification programs such as LEED certification offer a promising strategy, or merely a cosmetic benefit or “niche market?” What other information, incentives, and other strategies might effectively promote “greener” construction and operation of buildings by those who make such decisions?


March 23 Environmental opportunities, constraints, and incentives for businesses

Read the articles by Hart, Andrews, and Lovins et al. listed below. Taken together, these articles suggest potentially contradictory approaches for influencing business decisions toward greater environmental protection and sustainability: government regulation and enforcement, or cooperative approaches based on a presumption that innovation and cooperation are in businesses’ own self-interest (and in the following session, pressures by environmental advocacy groups as well).

Regulation. Friedman argued that businesses’ only social responsibility, other than making a profit, is to follow the law. If he is correct, then laws and regulations, not just corporate social responsibility or “voluntary” initiatives may be necessary constraints for businesses to protect the “open access resources” of air and water from pollution and overuse. Most studies conclude that the environmental regulations of the past several decades have in fact played a major role in reducing air pollution, water pollution, and hazardous wastes from businesses, and that they also have turned waste management itself into a far safer and more professionally (and profitably) managed business than previously existed. But many scholars also argue that regulations can be inefficient (more
costly than more “market-oriented” incentives), and not as effective for solving longer-term environmental problems that remain.

What effects do environmental regulations have on businesses’ decisions and behavior? On businesses’ values, beliefs and information, and incentives? What kinds of regulations would you expect to be least effective, and what kinds most effective, in promoting better environmental decisions and behavior by businesses? What differences in effects would you expect from so-called “market-oriented” regulations, such as those allowing businesses to “trade” pollution allowances under an overall “cap”? What about effects of information-disclosure or liability-based regulations?

What kinds of businesses would you expect to be most successful in improving their environmental performance when faced with such regulations, and what kinds least successful? What differences would you expect to result from the business’s size? Its profitability? Competition? Technological innovation? Visibility to the public? Political influence? Other factors? What then are the overall strengths and limitations of environmental regulations for influencing business behavior and decision-making toward the environment?

Innovation, creative advantage, and business self-interest. In contrast, are “sustainable enterprise” and “natural capitalism” fringe ideas, or the way of the future? If these ideas are so promising, why haven’t they already dominated the market economy? What conditions or factors would have to be present for these environmentally preferable ideas to spread to all businesses that significantly affect the environment? What roles do public policies play in defining these conditions for success, and how might they be enhanced?


(optional) Book, Natural Capitalism (by Hawken, Lovins and Lovins): An excellent book-length presentation of these ideas, with individual chapters on many specific industries and examples of ways of profitably achieving greater environmental sustainability by businesses. Downloadable chapters available on line at http://www.natcap.org/sitepages/pid20.php

March 28     Influencing environmental decision-making by businesses

Many of the most serious environmental impacts of human behavior and decisions occur not where environmentally conscious consumers and citizens and
investors live, but in faraway places where raw materials are extracted and initially processed: mining and leaching of minerals, oil and gas drilling, logging, smelting, petrochemical refining, and some forms of farming, animal production, and fishing. These raw materials and energy then are transported and further processed through global “commodity chains” until they are finally sold to their ultimate customers and users – either other businesses, or individual consumers.

What difficulties and opportunities does the trend toward increasingly global sourcing of raw materials and goods offer for influencing businesses’ behavior to be more environmentally sustainable? Are “codes of conduct” a step forward, or merely a weak substitute for effective environmental regulation by governments? What incentives do the dominant businesses have to influence environmental decision-making at other points in their commodity chains? How effective can business customers, ultimate consumers, investors, and environmental advocacy groups be in influencing corporate environmental behavior (recall our earlier discussion about eco-labeling as well)? How might these factors differ between big “brands “ that sell directly to consumers, commodities companies that sell only to other businesses, and firms that are a hybrid of both (major oil companies, for instance)? Between reputation-dependent industries (food? pharmaceuticals? others?) and those that are less so?

In this context, what strategies can environmental advocates use to influence environmental decisions by businesses, and which are most likely to be effective? How would you decide which strategies to adopt, and under what circumstances?

For instance, what are the advantages and limitations of “shaming” brands (as many activist groups do, and Klein describes) or even individual businesses, as a strategy for influencing their treatment of the environment? How can it be designed to affect the behavior of other firms not singled out for shaming as well? How can the decisions of non-branded, and non-multinational firms be influenced?

Similarly, what are the advantages and limitations of collaborative or cooperative approaches, and under what circumstances would you recommend for or against such approaches?


March 30: Paper 2 due.

Based on what you have now read and learned about influencing environmental decisions of businesses, turn in an individual 5-8 page paper (longer if you wish) on your own revised and improved strategy proposals for influencing business decisions to be more environmentally sustainable with respect to the problem you addressed with your team in the earlier session. These are individual papers, not a group product.

March 30 Presentations/discussion 4A: Influencing businesses’ envr. decisions

In class we will hear an oral summary of key points from each student, compare and discuss them, and generate further ideas from the class (first several topics).

April 4 Presentations/discussion 4B: Influencing businesses’ envr. decisions

In class we will hear an oral summary of key points from each student, compare and discuss them, and generate further ideas from the class (remaining topics).

IV. Environmental Decision-Making by Governments

April 6 Introduction: environmental decision-making by legislatures

How do governments’ agendas for decisions affecting the environment get set? How does a policy goal such as environmental protection or sustainability get on the governmental agenda, or get taken off of it? How do political processes influence this result?

Which of Kraft and Furlong’s models of political decision-making is most persuasive to you as an explanation of how Congress makes environmental policy decisions (elite theory, group theory, institutional theory, rational choice theory, political systems theory, …), and why? How do issues get framed as legislative decision issues, what factors affect the framing and agenda-setting process, and how do these answers affect the outcomes?

Read the chapter by Rabe. How does environmental decision-making by state governments differ from national decision-making by the U.S. Congress, and from the textbook models described by Kraft and Furlong. What differences in opportunities and limitations for environmental initiatives do state government decision processes present, as opposed to national ones?

April 11 Topic statement for final paper due (1-2 paragraphs).

For your final paper (due April 27), choose an example that interests you of a government’s decisions that affect the environment, and write a 5-10 page paper on (1) what the environmental issue is, (2) a policy (or combination of policies) you would want the government to adopt to improve the environmental outcome, and (3) what strategies you would propose to try to influence government’s behavior to adopt the policies you seek. These are individual papers, not a group product. Brief statement of topic due in writing on April 11

April 11 Case: North Carolina’s “Clean Smokestacks” law and Legislative Commission on Global Climate Change (guest participant: Ms. Elizabeth Ouzts, State Director, NCPIRG)

North Carolina’s “clean smokestacks” law, passed in 2002, is a recent example of a successful state legislative initiative to clean up an important environmental problem – air pollution from old coal-fired power plants, which had been exempted from compliance (“grandfathered”) under federal clean air requirements – and also to begin to put greenhouse gas reduction on North Carolina’s state policy agenda. It also reflects an unusually successful alliance among environmental advocacy groups, key legislators (including particularly some from western mountain North Carolina), and the major electric power utilities themselves, although opposed by a formidable group of other industries, and a solution ultimately brokered by the governor.

What was the environmental problem here, and what was the solution proposed by environmental advocacy groups? Who was for the solution and who was against it, and why? What key issues of values, information, and incentives were involved? How did the ultimate solution overcome influential political opponents?

In the aftermath of this law, the NC General Assembly in 2005 appointed a multi-stakeholder Legislative Commission on Global Climate Change, to report back next year. What policies should it consider proposing in order to deal effectively with the potential impacts of climate change on North Carolina? What lessons does the Clean Smokestacks case offer about effective strategies for achieving environmental policy innovations? What lessons does Rabe’s analysis of state climate-change initiatives offer?

North Carolina’s Clean Smokestacks Plan. March 2001. Read at least the Executive Summary (pp. 1-9) and especially pp. 19-28 (full plan is 32 pages).

NC Environmental Defense. 10 reasons to pass the Clean Smokestacks Bill This Session.


NC Clean Smokestacks Act (final text as enacted): on line at [http://www.ncga.state.nc.us/html2001/bills/AllVersions/Senate/S1078vc.html](http://www.ncga.state.nc.us/html2001/bills/AllVersions/Senate/S1078vc.html)

For further updates on its implementation see [http://daq.state.nc.us/news/leg/](http://daq.state.nc.us/news/leg/)


April 11 Additional session (optional, 5:30 p.m., Tate-Turner-Kuralt Auditorium): Guest lecture by Dr. Robert Costanza on ecological economics

April 13 Environmental decision-making by government agencies (case: natural resource management)

How do people serving as environmental managers in government agencies make decisions, and how do these practices influence the ways in which they make decisions affecting the environment?

Read Van Horn et al.’s characterization of bureaucratic politics, and Stephen Kelman’s argument for public-spirited public servants. Which of these
perspectives do you find most useful and persuasive? Do public administrators behave as self-interested individuals responding to flawed incentives, or as public-spirited scientist-administrators trying their best to serve the public under political constraints (or both, or neither)?

Case: management of the U.S. Forest Service. Read the resignation letter of the outgoing head of the Forest Service under the Clinton Administration, and a career forester (Michael Dombeck); and the Natural Forests Network’s characterization of the person who succeeded him as chief policy-maker for the National Forests in the his successor’s boss, Mark Rey (actually one level higher, as assistant secretary). Is Kelman’s argument about public-spiritedness a good description of Dombeck? Of Rey? More generally, what factors most strongly influence environmental decision-making by public administrators such as Dombeck and Rey?

Read the critiques of the Forest Service as an agency from both left (Sierra Club) and right (Thoreau Institute). Is Forest Service policy then driven mainly by changes in individual senior administrators such as Dombeck and Rey, or by deeper structural incentives, constraints, and conflicts? Should environmentalists embrace O’Toole’s recommended reforms? Jontz’s? Others?


April 18 International environmental decisions. Case: negotiating a global climate change agreement (multi-country simulation) (guest participant: Prof. Mort Webster, climate change expert, Public Policy)

Read the selections by Hempel and Jacoby/Reiner. How are international environmental agreements negotiated, and how do these negotiation practices influence the ways in which government negotiators make decisions affecting the
environment? How do each country’s domestic politics and political processes influence the negotiation of international environmental agreements?

What are the particular challenges associated with negotiating a multilateral agreement on limiting human causes of excessive global climate warming?

NOTE: We will also use part of this session to prepare for and begin the simulation of a climate change negotiation which we will complete during the next session.


Jacoby, Henry D and David M. Reiner. 2001. Getting Climate Policy On Track After the Hague. International Affairs 77(2): 297-312. (Note: Implementation of the Kyoto Protocol has moved ahead since this article was published, but for purposes of our simulation of multi-country negotiations it still provides a useful perspective on the negotiations as they were in progress)

(optional: update on recent outcome of Montreal negotiations, COP-11)


April 20 Negotiating a global climate change agreement (continued) (NOTE: class runs till between 8:00 and 9:00, last hour important for debriefing) (guest participant: Prof. Webster)

Case: Negotiation of a Global Climate Change Agreement (role-play simulation). NOTE: Due to the time requirements of this multi-party negotiation process, this session will run until mid-evening, but no later than 9:00 p.m., and the final hour (debriefing) is particularly important, (pizza and drinks will be provided). Please note this on your calendars and save the time.

April 25 Follow-up discussion: lessons from global climate change example, and further discussion of environmental decision-making by governments.

What were the main lessons you learned from this simulation? In what ways was this simulation similar to a real negotiation among nations, such as Jacoby describes the Kyoto Protocol negotiations? In what ways was it different?
What lessons does it suggest about environmental decision-making by governments, and especially by negotiations among governments?

Given these lessons, what do you see as the most promising strategies for achieving further reductions in human contributions to excessive global warming, and more generally, for achieving better environmental decisions by governments?

**April 27 Paper 3 due.**

Based on what you have now read and learned about influencing environmental decisions of governments, turn in an individual 5-10 page paper (longer if you wish) on your own revised and improved strategy proposals for influencing a government’s decisions to be more environmentally sustainable, with respect to an environmental policy problem of your own choosing. These are individual papers, not a group product.

**April 27 Last class: final discussion**

What does Diamond identify as the key problems in environmental decision-making that have shaped the success or failure of civilizations? How might these considerations apply to decisions affecting the environment in the United States today?

What does the Millennium Ecosystem Assessment identify as the most important changes in environmental decision-making that are needed today to achieve an environmentally sustainable future for our civilization?

What lessons does Layzer propose for our consideration as to how to influence environmental decisions in the U.S.?

What other key lessons have we learned this semester about environmental decision-making, and what other aspects of environmental decision-making should we note that we did not discuss?


FINAL EXAM: The final exam will be given as a take-home exam. It will be
distributed at the final class, Wednesday, April 27, and will be due at 4:00
p.m. on TUESDAY, MAY 2. (This is the same time as the scheduled exam
time for this class).